

CAS 1806-26-4

Substance name 4-octylphenol

Toxicity

4-octylphenol has been classified as a Category 1 endocrine disruptor by the European Union.¹ Rats exposed to 4-octylphenol during gestation and for three weeks after birth had decreased testicular size and decreased sperm production as adults when compared to unexposed control animals.² Several *in vitro* assays suggest indicate that 4-octylphenol has estrogenic activity.^{3,4}

Exposure

A Dutch study of plastics in children's products found 4-octylphenol in 2 out of 48 polyvinyl chloride plastics.⁵

References

1. European Commission DG Environment (2002). Endocrine disruptors: study on gathering information on 435 substances with insufficient data. Final report B4-3040/2001/325850/MAR/C2.
2. Sharpe, RM, Fisher, JS, Millar, MM, Jobling, S, and Sumpter, JP. (1995). Gestational and lactational exposure of rats to xenoestrogens results in reduced testicular size and sperm production. *Environ Health Perspect* 103: 1136-43.
3. Andersen, HR et al. (1999). Comparison of short-term estrogenicity tests for identification of hormone-disrupting chemicals. *Environ Health Perspect* 107(Suppl 1): 89-108.
4. Bonefeld-Jorgensen, EC et al (2007) Endocrine disrupting potential of bisphenol A, bisphenol A dimethacrylate, 4-n-nonylphenol, 4 -n-octylphenol in vitro: new data and a brief review. *Environ Health Perspect* 115(suppl 1): 69-76.
5. Dutch Inspectorate for Health Protection and Veterinary Public Health (VWA/KvW). Screening of Plastic Toys for Chemical Composition and Hazards, Report ND05o610/01, July 2005.